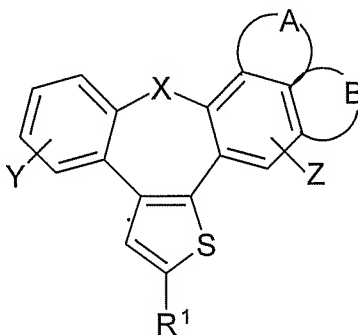


In the Claims:

Please amend the claims as follows:

1. (Currently Amended) A method of treating a disease, damage, or disorder of the central nervous system selected from the group consisting of anxiety, depression and modest depression, bipolar disorders, sleeping disorders, sexual disorders, psychosis, borderline psychosis, schizophrenia, migraine, personality disorders and obsessive-compulsive disorders, social phobia or panic attacks, organic mental disorders in children, aggression, memory disorders and personality disorders in elderly people, addiction, obesity, bulimia and similar disorders, snoring, premenstrual troubles, trauma, brain stroke, neurodegenerative diseases, cardiovascular disorders, and gastrointestinal disorders caused by a disorder of neurochemical equilibrium of biogenic amines or other neurotransmitters in a human in need thereof, said method comprising administering to said human a therapeutically effective amount of a compound of the general formula I



I

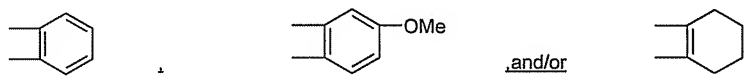
wherein

X means CH_2 or a heteroatom selected from the group consisting of O and S, $\text{S}(=\text{O})$, $\text{S}(=\text{O})_2$ and NR^a , wherein R^a is hydrogen or a substituent selected from the group consisting of $\text{C}_1\text{-C}_3$ -alkyl, $\text{C}_1\text{-C}_3$ -alkanoyl, $\text{C}_1\text{-C}_7$ -alkyloxycarbonyl, $\text{C}_7\text{-C}_{40}$ -arylalkyloxycarbonyl, $\text{C}_7\text{-C}_{40}$ -aroyl, $\text{C}_7\text{-C}_{40}$ -arylalkyl, $\text{C}_3\text{-C}_7$ -alkylsilyl, $\text{C}_5\text{-C}_{40}$ -alkylsilylalkyloxyalkyl;

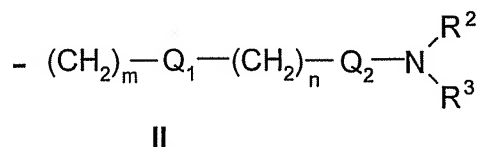
Y and Z independently from each other mean one or more identical or different substituents linked to any available carbon atom selected from the group consisting of hydrogen, halogen, C₁-C₄-alkyl, C₂-C₄-alkenyl, C₂-C₄-alkinyl, trifluoromethyl, halo-C₁-C₄-alkyl, hydroxy, C₁-C₄-alkoxy, trifluoromethoxy, C₁-C₄-alkanoyl, amino, amino-C₁-C₄-alkyl, C₁-C₄-alkylamino, *N*-(C₁-C₄-alkyl)amino, *N,N*-di(C₁-C₄-alkyl)amino, thiol, C₁-C₄-alkylthio, C₁-C₄-alkylsulfonyl, C₁-C₄-alkylsulfinyl, carboxy, C₁-C₄-alkoxycarbonyl, nitro, \ddagger



wherein G_A or G_B have a meaning of structures



R^1 means CH₂OH, optionally substituted C₁-C₇-alkyl, C₁-C₇-alkyloxycarbonyl, or a substituent of the formula II:



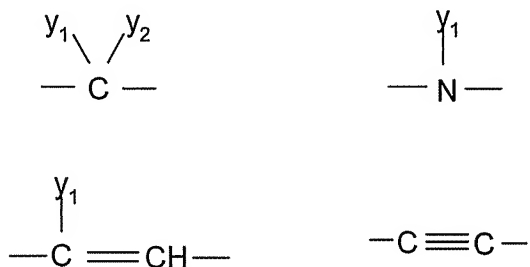
wherein

R^2 and R^3 ~~are simultaneously or independently selected from the~~ group consisting of each other represents hydrogen, C₁-C₄-alkyl, and aryl, or together with the N to which they are connected have the meaning of optionally substituted heterocycle or heteroaryl;

n represents an integer from 0 to 3;

m represents an integer from 1 to 3;

Q₁ and Q₂ independently from each other have the meaning of oxygen, sulfur or a group:



wherein substituents

y₁ and y₂ independently from each other have the meaning of hydrogen, halogen, optionally substituted C₁-C₄-alkyl or aryl, hydroxy, C₁-C₄-alkoxy, C₁-C₄-alkanoyl, thiol, C₁-C₄-alkylthio, C₁-C₄-alkylsulfonyl, C₁-C₄-alkylsulfinyl, nitro, or together form a carbonyl or imino group;

wherein for all substituents mentioned before an optionally substituted alkyl group is an alkyl group with one, ~~two, three~~ or more substituents selected from the group consisting of ~~which are~~ halogen atom, hydroxy, C₁-C₄ alkoxy, thiol, C₁-C₄ alkylthio, amino, N-(C₁-C₄) alkylamino, N,N-di(C₁-C₄-alkyl)-amino, sulfonyl, C₁-C₄ alkylsulfonyl, sulfinyl, and C₁-C₄ alkylsulfinyl;

wherein aryl has the meaning of an aromatic ring as well as fused aromatic rings containing one ring with at least 6 carbon atoms or two rings with totally 10 carbon atoms and with alternating double bonds between carbon atoms;

wherein a heteroaryl is a group which is an aromatic or partially aromatic group of a monocyclic or bicyclic ring with 4 to 12 carbon atoms, at least one of them being a hetero atom selected from ~~such as~~ O, S and ~~or~~ N, and the available nitrogen atom or carbon atom is the binding site of the group to the rest of the molecule either via a direct bond or via a C₁-C₄ alkylene group; τ

wherein a heterocycle is a five-member[[e]] or six-member, fully saturated or partly unsaturated heterocyclic group[[s]] containing at least one hetero atom selected from ~~such as~~ O, S and ~~or~~ N, and the available nitrogen atom or carbon atom is the binding site of the group to the rest of the molecule either via a direct bond or via a C₁-C₄ alkylene group; and

wherein an optionally substituted aryl, heteroaryl or heterocycle is an aryl, heteroaryl or heterocycle group which is substituted with one or two substituent independently selected from the group consisting of ~~which are~~ halogen, C₁-C₄ alkyl, cyano, nitro, hydroxy, C₁-C₄ alkoxy, thiol, C₁-C₄ alkylthio, amino, *N*-(C₁-C₄) alkylamino, *N,N*-di(C₁-C₄-alkyl)-amino, sulfonyl, C₁-C₄ alkylsulfonyl, sulfinyl, and C₁-C₄ alkylsulfinyl;

or a ~~and of their~~ pharmaceutically acceptable salt[[s]] thereof and solvates.

2. (Currently Amended) The method according to claim 1, wherein the selected biogenic amines are selected from the group consisting of serotonin, norepinephrine and dopamine.

3. (Currently Amended) The method according to claim 1, wherein the neurotransmitter is glutamate.

4. (Cancelled).

5. (Currently Amended) The method according to claim 1 [[4]], wherein the compounds of the general formula I show binding affinity to a receptor of one or more biogenic amines.

6. (Currently Amended) The method according to claim 1 [[5]], wherein the compounds of the general formula I show significant binding affinity to serotonin 5-HT_{2A} and 5-HT_{2C} receptors.

7. (Previously Presented) The method according to claim 6, wherein the compounds of the general formula I show binding affinity to selected serotonin receptors in a concentration of IC₅₀<1μM.

8. (Previously Presented) The method according to claim 1, wherein the compounds of the general formula I act as σ₁ receptor ligands in a concentration of IC₅₀<1μM by modulating central neurotransmitter system.

9. (Previously Presented) The method according to claim 1, wherein the compounds of the general formula I show dual binding affinity to σ₁ receptor and to at least one serotonin receptor selected from 5-HT_{2A} and 5-HT_{2C}.

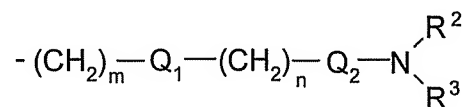
10. (Cancelled).

11. (Cancelled).

12. (Cancelled).

13. (Previously Presented) The method according to claim 1 wherein Y and Z independently from each other mean one or more identical or different substituents linked to any available carbon atom selected from the group consisting of hydrogen, fluorine, chlorine, bromine, C₁-C₄-alkyl, halo-C₁-C₄-alkyl, hydroxy, C₁-C₄-alkoxy, trifluoromethoxy, C₁-C₄-alkanoyl, amino, amino-C₁-C₄-alkyl, *N*-(C₁-C₄-alkyl)amino, *N,N*-di(C₁-C₄-alkyl)amino, thiol, C₁-C₄-alkylthio, cyano and nitro.

14. (Currently Amended) The method according to claim 1 wherein R¹ has the meaning of CH₂OH, optionally substituted C₁-C₇-alkyl, C₁-C₇-alkyloxycarbonyl, or a substituent of the formula II:



II

wherein

R² and R³ are simultaneously or independently selected from the group consisting of each other represents hydrogen, C₁-C₄-alkyl, and aryl wherein aryl has the meaning as defined above; or together with N have the meaning of heterocycle or heteroaryl are selected from the group consisting of morpholine-4-yl, piperidine-1-yl, pyrrolidine-1-yl, imidazole-1-yl and piperazine-1-yl;

~~m represents an integer from 1 to 3;~~

~~n represents an integer from 0 to 3;~~

Q₁ and Q₂ independently from each other have the meaning of oxygen or CH₂ group.

15. (Currently Amended) The method according to claim 1, wherein the compounds of the general formula I, ~~pharmaceutically acceptable salts and solvates thereof~~ are selected from the group consisting of:

8-Oxa-1-thia-benzo[e]naphtho[3,2-h]azulene-2-carboxylic acid ethyl ester;

1,8-Dithia-benzo[e]naphtho[3,2-h]azulene-2-carboxylic acid ethyl ester;

3,10-Dithia-benzo[e]naphtho[1,2-h]azulene-2-carboxylic acid ethyl ester;

10-Oxa-3-thia-benzo[e]naphtho[1,2-h]azulene-2-carboxylic acid ethyl ester;

11-Methoxy-8-oxa-1-thia- benzo[e]naphtho[3,2-h]azulene-2-carboxylic acid ethyl ester;

6,7,8,9-Tetrahydro-10-oxa-3-thia-benzo[e]naphtho[1,2-h]azulene-2-carboxylic acid ethyl ester;

10,11,12,13-Tetrahydro-8-oxa-1-thia-benzo[e]naphtho[3,2-h]azulene-2-carboxylic acid ethyl ester;

(8-Oxa-1-thia-benzo[e]naphtho[3,2-h]azulen-2-yl)-methanol;

(1,8-Dithia-benzo[e]naphtho[3,2-h]azulen-2-yl)-methanol;

(3,10-Dithia-benzo[e]naphtho[1,2-h]azulen-2-yl)-methanol;

(10-Oxa-3-thia-benzo[e]naphtho[1,2-h]azulen-2-yl)-methanol;

(11-Methoxy-8-oxa-1-thia-benzo[e]naphtho[3,2-h]azulen-2-yl)-methanol;

(6,7,8,9-Tetrahydro-10-oxa-3-thia-benzo[e]naphtho[1,2-h]azulen-2-yl)-methanol;

(10,11,12,13-Tetrahydro-8-oxa-1-thia-benzo[e]naphtho[3,2-h]azulen-2-yl)-methanol;

Dimethyl-[2-(8-oxa-1-thia-benzo[e]naphtho[3,2-h]azulen-2-ylmethoxy)-ethyl]-amine;

Dimethyl-[3-(8-oxa-1-thia-benzo[e]naphtho[3,2-h]azulen-2-ylmethoxy)-propyl]-amine;

3-(8-Oxa-1-thia-benzo[e]naphtho[3,2-h]azulen-2-ylmethoxy)-propylamine;

Dimethyl-[3-(1,8-dithia-benzo[e]naphtho[3,2-h]azulen-2-ylmethoxy)-propyl]-amine;

Dimethyl-[2-(3,10-dithia-benzo[e]naphtho[1,2-h]azulen-2-ylmethoxy)-ethyl]-amine;

Dimethyl-[3-(3,10-dithia-benzo[e]naphtho[1,2-h]azulen-2-ylmethoxy)-propyl]-amine;

Dimethyl-[2-(10-oxa-3-thia-benzo[e]naphtho[1,2-h]azulen-2-ylmethoxy)-ethyl]-amine;

Dimethyl-[3-(10-oxa-3-thia-benzo[e]naphtho[1,2-h]azulen-2-ylmethoxy)-propyl]-amine;

Dimethyl-[3-(11-methoxy-8-oxa-1-thia-benzo[e]naphtho[3,2-h]azulen-2-ylmethoxy)-propyl]-amine;

Dimethyl-[2-(6,7,8,9-tetrahydro-10-oxa-3-thia-benzo[e]naphtho[1,2-h]azulen-2-ylmethoxy)-ethyl]-amine;

Dimethyl-[3-(6,7,8,9-tetrahydro-10-oxa-3-thia-benzo[e]naphtho[1,2-h]azulen-2-ylmethoxy)-propyl]-amine;

3-(6,7,8,9-Tetrahydro-10-oxa-3-thia-benzo[e]naphtho[1,2-h]azulen-2-ylmethoxy)-propylamine;

Methyl-[3-(6,7,8,9-tetrahydro-10-oxa-3-thia-benzo[e]naphtho[1,2-h]azulen-2-ylmethoxy)-propyl]-amine;

Dimethyl-[2-(10,11,12,13-tetrahydro-8-oxa-1-thia-benzo[e]naphtho[3,2-h]azulen-2-ylmethoxy)-ethyl]-amine;

Dimethyl-[3-(10,11,12,13-tetrahydro-8-oxa-1-thia-benzo[e]naphtho[3,2-h]azulen-2-ylmethoxy)-propyl]-amine;

4-[2-(10,11,12,13-Tetrahydro-8-oxa-1-thia-benzo[e]naphtho[3,2-h]azulen-2-ylmethoxy)-ethyl]-morpholine;

1-[2-(10, 11, 12, 13-Tetrahydro-8-oxa-1-thia-benzo[e]naphtho[3,2-h]azulen-2-ylmethoxy)-ethyl]-piperidine;

1-[2-(10, 11, 12, 13-Tetrahydro-8-oxa-1-thia-benzo[e]naphtho[3,2-h]azulen-2-ylmethoxy)-ethyl]-pyrrolidine;

Dimethyl-[2-(10, 11, 12, 13-tetrahydro-8-oxa-1-thia-benzo[e]naphtho[3,2-h]azulen-2-ylmethoxy)-propyl]-amine;

Dimethyl-[1-methyl-(10, 11, 12, 13-tetrahydro-8-oxa-1-thia-benzo[e]naphtho[3,2-h]azulen-2-ylmethoxy)-ethyl]-amine;

11-Hydroxy-8-oxa-1-thia-benzo[e]naphtho[3,2-h]azulene-2-carboxylic acid ethyl ester;

11-(2-Dimethylamino-ethoxy)-8-oxa-1-thia-benzo[e]naphtho[3,2-h]azulene-2-carboxylic acid ethyl ester;

11-(3-Dimethylamino-propoxy)-8-oxa-1-thia-benzo[e]naphtho[3,2-h]azulene-2-carboxylic acid ethyl ester; and

Dimethyl-(10, 11, 12, 13-tetrahydro-8-oxa-1-thia-benzo[e]naphtho[3,2-h]azulen-2-ylmethyl)amine,

and pharmaceutically acceptable salts thereof.